

## **REMARKS / ARGUMENTS**

### **Status of the Claims**

Claims 1-7, 9, and 11-19 are pending in the application. Claims 1-7, 9, and 11-19 stand rejected. Applicant has amended claims 1, 15, 17, 18, and 19, and cancelled claims 7, 9, and 11, leaving claims 1-6, and 12-19 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §103(a), have been traversed, that no new matter has been entered through this amendment, and that the application is in condition for allowance.

### **No New Subject Matter**

For the Examiner's reference, support for the attached amendments may be found in at least, for example, the subject specification in paragraph [0023], [0024], and [0036-0038], and FIGS. 3-5 .

### **Claim Rejections - 35 U.S.C. §103(a) (Li, Lindeberg, and Hu)**

Claims 1-7, 9, 11-19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,937,776 to Li et al. (hereinafter "Li") in view of "Discrete Derivative Approximations with Scale-Space Properties: A Basis for Low-Level Feature Extraction," by Lindeberg (hereinafter "Lindeberg") and "Automatic Lung Segmentation for Accurate Quantitation of Volumetric X-Ray CT Images" by Hu et al (hereinafter "Hu"). Applicant respectfully traverses this rejection.

Applicant respectfully submits that the obviousness rejection based on Li, Lindeberg, and Hu is improper as the combination of References fail to teach or suggest each and every element of the instant invention in such a manner as to perform as the claimed invention performs. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of

establishing that all elements of the invention are taught or suggested in the prior art.  
MPEP §2143.03.

It is submitted that Li, Lindeberg, and Hu, taken alone or in combination, fail to disclose or suggest *inter alia*:

“identifying a plurality of discrete derivative approximations that when convolved with said analytic function, approximates an analytical derivative of said analytic function... [and]... optimizing said discrete derivative approximations in a least squares sense to reduce an error between said plurality of discrete derivative approximations and said analytical derivative of said analytic function”

as recited in independent claim 1.

The Examiner readily admits that Li, Lindeberg, and Hu are silent with regards to “optimizing said discrete derivative approximations in a least squares sense to reduce an error between said plurality of discrete derivative approximations and said analytical derivative of said analytic function” as recited in independent claim 1 (emphasis added, please see Office Action, page 8).

However, the Examiner has taken Official Notice that these features are commonly known, employed, and/or established to be obvious to one of ordinary skill in the art. Applicants hereby challenge the Examiner to produce a reference clearly showing that the features noted above, as arranged wholly with regards to the claims, would be undeniably obvious to one of ordinary skill in the art. Without such a reference, or affidavit from an expert of the art to which this invention pertains, this rejection is improper and should be withdrawn.

Therefore, because Li, Lindeberg, and Hu fail to disclose or suggest each and every feature of claim 1, claim 1 is patentable over Li, Lindeberg, and Hu in any combination.

It is further submitted that each of independent claims 15, 16, 17, 18, and 19 contain somewhat similar features to those argued above with reference to claim 1.

Therefore, claims 15, 16, 17, 18, and 19 are likewise patentable over Li, Lindeberg, and Hu for at least these reasons (it is noted that claims 15, 16, 17, 18, and 19 should be interpreted solely by those limitations set forth therein).

Claims 2-6, 12, and 14 are patentable at least by virtue of their dependency upon independent claim 1, in addition to the features set forth therein.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of this rejection.

**CONCLUSION**

In light of the forgoing, Applicant respectfully submits that the pending rejections have been traversed, and respectfully requests that the Examiner reconsider and withdraw these rejections.

If a communication with Applicant's Attorneys would assist in advancing this case to allowance, the Examiner is cordially invited to contact the undersigned so that any such issues may be promptly resolved.

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 07-0845.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

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